

REMARKS

Claims 1-16 are pending and are rejected. Reconsideration and allowance of Claims 1-16 are respectfully requested.

Claim Rejections under 35 USC §102

Claims 1-16 are rejected under 35 USC §103(a) as being unpatentable over Welin (US Pub. No. 2006/0007871). Applicants respectfully traverse these rejections.

Claims 1-5

Applicant's Claim 1 recites:

A traffic management processor for scheduling packets for transmission across a network, comprising:

a departure time calculator for generating a departure time for each packet;

a departure time table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit; and

a reset circuit coupled to the departure time calculator and to the departure time table, the reset circuit configured to reset the rollover bits from a first logic state to a second logic state at a predetermined time.

Welin fails to disclose or suggest the traffic management processor of Applicants' Claim 1.

The Office Action acknowledges that Welin does not explicitly show a departure time table with a plurality of rows of departure times, and concludes that "it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use Welin's identification of a single departure time and rollover (MSB) bit to construct a table with a plurality of rows, with each row containing a departure time and rollover bit, so that the packets will depart in an orderly fashion." Applicants disagree.

The Office Action has NOT pointed to any language in Welin that provides motivation for modifying its "single storage location" to include a plurality of rows for

storing a plurality of departure times for a corresponding plurality of packets, as recited in Applicants' Claim 1. Indeed, as noted by the Office Action, Welin describes a single storage location for storing "the time To when the decoder was first ready to accept the first packet."<sup>1</sup> Thus, in contrast to the departure time table of Applicants' Claim 1, which stores a **plurality of departure times** for a **plurality of packets**, Welin's single storage location stores a **single time** that indicates **when its decoder is ready to accept** the next packet. Because Welin uses a single decoder to receive the packets from the egress packet queue,<sup>2</sup> only one decoder accept time (To) needs to be stored in Welin. Accordingly, there is **NO reason** or motivation to modify Welin to include multiple storage locations for storing multiple decoder accept times for the same decoder. Indeed, storing multiple accept times for the same decoder would not cause the packets to "depart in an orderly fashion," as suggested by the Office Action, but rather would likely result in device malfunction due to timing conflicts.

The Patent Office has the burden of establishing a prima facie case of obviousness under 35 USC §103. It must show that some objective teaching in the prior art generally held by one of ordinary skill in the art would lead an individual to combine the relevant teachings of the references<sup>3</sup>. It is well settled that there must be some **reason** or motivation in the art to combine or modify references when making a prima facie case of obviousness under 35 USC §103. Thus, *absent some reason in the art to modify a reference*, the Office has failed to establish a prima facie case for obviousness. Therefore, because there is **NO reason to modify** Welin to include multiple locations, the Office Action has NOT made a prima facie case of obviousness under 35 USC §103.

Further, Welin discusses the concept of "system timer counter rollover" and its "MSB bit" with respect to a **single** system timer;<sup>4</sup> there is no language in Welin that discloses or suggests a **plurality of rollover bits**, and there is no language in Welin that discloses or suggests storing a plurality of rollover bits **together** with the departure times for a plurality of packets in the **same** table, as recited in Applicants'

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1 See Welin, paragraph [0294].

2 See Welin, Figure 9.

3 In re Fine, 837 F.2d 1071, 1074 (Fed. Cir. 1988).

4 Welin, paragraph [0567].

Claim 1.

Accordingly, because Welin fails to disclose or suggest a traffic management processor that includes "a departure time table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit," as recited in Claim 1, Applicants' Claim 1 is patentable over Welin.

Claims 2-5 depend from Claim 1 and therefore distinguish over the cited references for at least the same reasons as Claim 1.

Claims 6-9

Applicant's Claim 6 recites:

A traffic management processor for scheduling packets for transmission across a network, comprising:

a counter for generating an arrival time for each packet;

an arithmetic logic unit having an input to receive the arrival time and configured to generate a departure time in response to the arrival time;

a reset circuit having an input to receive the arrival time and having an output for generating a reset signal; and

a table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit, wherein the reset signal selectively resets the rollover bit from a first logic state to a second logic state in response to the reset signal.

As discussed above with respect to Claim 1, Welin fails to disclose, suggest, or provide motivation for "a departure time table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit." Therefore, Welin fails to disclose, suggest, or provide motivation for "a table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit," as recited in Applicants' Claim 6. Accordingly, Claim 6 is patentable over Welin.

Claims 7-9 depend from Claim 6 and therefore distinguish over the cited references for at least the same reasons as Claim 6.

Claims 10-12

Applicant's Claim 10, as amended, recites:

A method for operating a packet scheduler, comprising:  
determining an arrival time for each of a plurality of packets received;  
calculating a departure time for each packet in response to the packet's arrival time;  
storing the departure times for the plurality of packets in a departure time table;  
asserting a rollover bit corresponding to each departure time; and  
de-asserting the rollover bits when the arrival time reaches a maximum value.

As discussed above with respect to Claim 1, Welin fails to disclose, suggest, or provide motivation for "a departure time table having a plurality of rows, each having a first portion for storing the departure time for a corresponding packet and having a second portion for storing a rollover bit." Therefore, Welin fails to disclose, suggest, or provide motivation for "storing the departure times for a plurality of the packets in a departure time table," as recited in Applicants' Claim 10.

Further, although Welin discloses the use of a single rollover value for circular buffers and circular time,<sup>5</sup> Welin fails to disclose, suggest, or provide motivation for "asserting a rollover bit corresponding to each departure time," as recited in Applicants' Claim 10.

Accordingly, Claim 10 is patentable over Welin.

Claims 11-16 depend from Claim 10 and therefore distinguish over the cited references for at least the same reasons as Claim 10.

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<sup>5</sup> See Welin, paragraphs [0610] to [0632] and [0685]; Welin's Fig. 32.

CONCLUSION

In light of the above remarks, it is believed that Claims 1-16 are in condition for allowance and, therefore, a Notice of Allowance of 1-16 is respectfully requested. If the Examiner's next action is other than allowance as requested, the Examiner is requested to call the undersigned at (408) 236-6646.

Respectfully submitted,



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